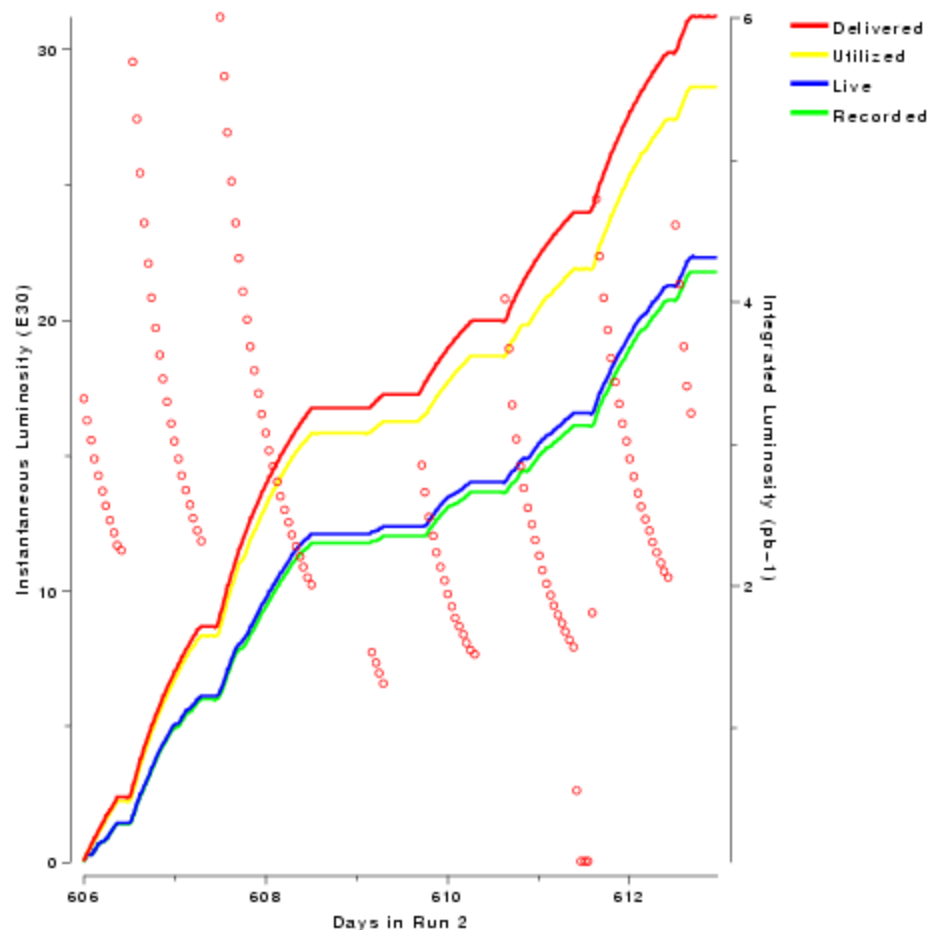
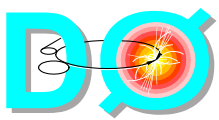


## Week of October 28 to November 3 D0 Summary

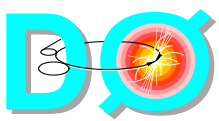
- Delivered luminosity and operating efficiency
  - ♦ Delivered:  $6.0\text{pb}^{-1}$
  - ♦ Recorded:  $4.4\text{pb}^{-1}$  (~74%)
- Data taking efficiency
  - ♦ no major hardware/software problems
  - ♦ best week on record
- Number of events collected
  - ♦ 10mln events
- Accelerator halo
  - ♦ reasonable
  - ♦ working on feedback to Tevatron halo task force
- Beam position
  - ♦ stable





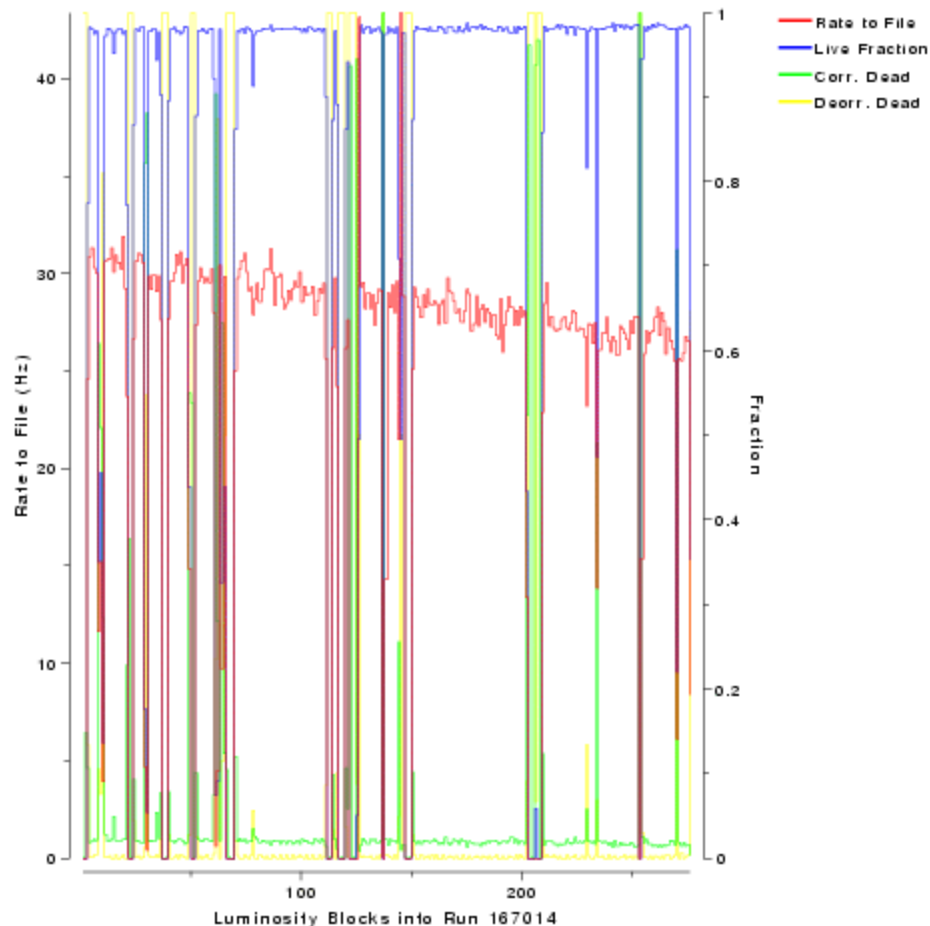
# Detectors Operation

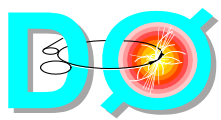
- Luminosity
  - ♦ stable
- Silicon
  - ♦ no major problems
  - ♦ problems with slow monitoring affected fiber tracker readout exist in silicon as well
  - ♦ experienced a few ~1 hour issues with silicon readout - experts help was needed to resolve
- Fiber tracker/preshower
  - ♦ full system in the readout
  - ♦ resolution of slow monitoring problem in readout is in progress
- Calorimeter
  - ♦ running smoothly
- Muon system
  - ♦ two readout/trigger issues are affecting overall DO efficiency
    - ▲ mini-drift tube readout crates losing sync
    - ▲ "missing" inputs into muon Level 2 trigger
    - ▲ both of the above problems account for ~12% of efficiency loss and limits our capabilities of increasing trigger rates (errors increase drastically with trigger rate increase)
- Forward proton detector
  - ♦ inserting pots during all stores



# Data Taking and Triggering

- Running physics trigger list 9.2 since last Thursday
  - ♦ designed for luminosity in the range  $(5-50)10^{30}$
  - ♦ optimized for high Pt data collection and physics data sample for Winter Conferences
- After improving stability in trigger/DAQ over month we are able to set new trigger rates guidelines which are limited by trigger/DAQ systems stability
  - ♦ L1 trigger  $\sim 0.5\text{kHz}$
  - ♦ L2 trigger  $0.2-0.3\text{kHz}$
  - ♦ L3 trigger (to tape)  $\sim 50\text{ Hz}$
- Data collection efficiency
  - ♦ typical data collection efficiency is  $\sim 80-90\%$  during typical global run
  - ♦  $\sim 70\%-80\%$  per store
  - ♦ average per week is  $\sim 75\%$





# Summary

- DØ experiment is progressing well with physics data taking
  - ♦ trigger list 9.2 is running on-line
  - ♦ 10 mln events collected last week - the best week on record
- DØ weekly data taking efficiency is steady above 70%
  - ♦ problems with fiber tracker monitoring resolved
  - ♦ trigger rates are a little more conservative (by ~30%)
    - ▲ some of the problems are rate dependent (non-linearly)
  - ♦ in process of attacking (currently) most serious issues
    - ▲ muon loss of sync and muon Level 2 losing inputs
- Further increase in off-line data processing power as well as Level 1 and Level 2 trigger bandwidth is expected soon
- Planning for "a few" hours access this Wednesday
  - ♦ central muon tracker HV problem
  - ♦ silicon/fiber tracker slow monitoring modifications
  - ♦ repairs of failed towers in Level 1 calorimeter trigger